

Cinnaminson  
NJ 08077

Phone: 856-303-2554

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Tuesday, July 14, 2015 1:25 PM

**To:** Li, Charles; Dobranic, Jason

**Subject:** RE: test sample - great

Hi Charlie,

Good to hear everything is going well. What is your UPS overnight shipping address and phone number they can reach you at?

As to news from me, I have written a review article that summarizes all of the ERMI studies to date. It is in internal review right now but hope to submit for publication soon.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Tuesday, July 14, 2015 12:27 PM

**To:** Dobranic, Jason; Vesper, Stephen

**Subject:** RE: test sample ?

Hi, Steve,

Yes, please send to me directly, no login in, no payment, as EPA quality concerns for ERMI runs. We have a better lab now, the lab has HEPA filter clean air, also PCR Workstations with Class100 clean air. We run positive and negative controls every months as our monthly QC. I also conducted ERMI training runs annually for lab analysts.

Our MSQPCR is fine. Any news from your side, Steve?

Regards

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Dobranic, Jason  
**Sent:** Tuesday, July 14, 2015 11:48 AM  
**To:** Vesper, Stephen; Li, Charles  
**Subject:** RE: test sample ?

Sure, copying Dr. Li.

Sent from my Verizon 4G LTE Smartphone

---- Vesper, Stephen wrote ----

Hi Jason,

I have received some calls from people using the ERMI analysis and they tell me they have been sending the same sample to several licensed labs. They are telling me that they are getting significantly different ERMI reports from the different labs. There could be many reasons for this but it does concern me a great deal. I would like to send one sample, which we have tested here, to your lab and each of the other labs to make sure everyone is getting the same ERMI result.

Would it be possible for me to send Charlie Li (I assume he is still doing this analysis) a sample for ERMI analysis. This would be a big help to me in trying to clarify these reports.

Thanks.

Steve

**From:** Dobranic, Jason [<mailto:JDobranic@EMSL.com>]  
**Sent:** Monday, May 11, 2015 5:38 PM  
**To:** Vesper, Stephen  
**Subject:** RE: new article and editorial

Thanks Steve, I actually read this one a few weeks ago as I prepared a presentation. I gave an ERMI talk up in Maine a couple weeks ago. It was a good one. Good to see there is a lot of active research going on. The SERMI was another interesting one in Singapore.

Appreciate you forwarding these to make sure I have the latest info,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Tuesday, May 05, 2015 9:35 AM

**To:** Dobranic, Jason

**Subject:** new article and editorial

Hi Jason,

New article and editorial supporting ERMI.

Steve





Lab Sample Number	Client Sample ID	Sample Location	Sample Size	EMSL Order#
6115-EPA-VC1-3	VC1-3	EPA QC Dust	5 mg	6115-EPA-VC1-3

Environmental Relative Moldiness Index (ERMI) by Mold Specific Quantitative Polymerase Chain Reaction (MSQPCR)

Lab Sample Number Client Sample ID Sample Location Sample size	6115-EPA-VC1-3 VC1-3 EPA QC Dust 5mg Dust
<b>EPA 36 Species Identification Group 1</b>	Spores E./ mg dust
<i>Aspergillus flavus</i>	ND
<i>Aspergillus fumigatus</i>	ND
<i>Aspergillus niger</i>	5
<i>Aspergillus ochraceus</i>	ND
<i>Aspergillus penicillioides</i>	ND
<i>Aspergillus restrictus</i>	ND
<i>Aspergillus sclerotiorum</i>	ND
<i>Aspergillus sydowii</i>	ND
<i>Aspergillus unguis</i>	ND
<i>Aspergillus versicolor</i>	ND
<i>Eurotium (A.) amstelodami</i>	15
<i>Aureobasidium pullulans</i>	151
<i>Chaetomium globosum</i>	ND
<i>Cladosporium sphaerospermum</i>	68
<i>Paecilomyces variotii</i>	3
<i>Penicillium brevicompactum</i>	ND
<i>Penicillium corylophilum</i>	ND
<i>Penicillium crustosum (group2)</i>	ND
<i>Penicillium purpurogenum</i>	ND
<i>Penicillium spinulosum</i>	ND
<i>Penicillium variable</i>	ND
<i>Scopulariopsis brevicaulis</i>	3
<i>Scopulariopsis chartarum</i>	ND
<i>Stachybotrys chartarum</i>	ND
<i>Trichoderma viride</i>	ND
<i>Wallemia sebi</i>	18
<b>Group 1 Sum of the Logs</b>	<b>8.1</b>

Lab Sample Number Client Sample ID Sample Location Sample size	6115-EPA-VC1-3 VC1-3 EPA QC Dust 5mg Dust
<b>EPA 36 Species Identification Group 2</b>	Spores E./ mg dust
<i>Acremonium strictum</i>	ND
<i>Alternaria alternata</i>	8
<i>Aspergillus ustus</i>	14
<i>Cladosporium cladosporioides I</i>	ND
<i>Cladosporium cladosporioides II</i>	ND
<i>Cladosporium herbarum</i>	80
<i>Epicoccum nigrum</i>	974
<i>Mucor and Rhizopus group</i>	14
<i>Penicillium chrysogenum</i>	ND
<i>Rhizopus stolonifer</i>	1
<b>Group 2 Sum of the Logs</b>	<b>8.1</b>



Interpretation Key Group 2 Sum of the Logs



≤ 2 or ≥ 20 -- Less than or equal to 2 or Greater than or equal to 20



> 2 and < 20 -- Greater than 2 or Less than 20

**ERMI Value:** 0.0  
**ERMI Interpretation\*** Level 3



Interpretation Key ERMI Value



**Level 4:** ERMI Value > 5, High Relative Moldiness. Further Investigation needed to determine the sources of this mold.



**ERMI Value > -4 to 0 (Level 2) and > 0 to ≤ 5 (Level 3),** Moderate Relative Moldiness. Further investigation needed to determine if sources of mold exists.



**Level 1:** ERMI Value ≤ -4, Low Relative Moldiness. It is unlikely you have a mold problem.

Initial Report From: 7/21/2015  
Amended Report From: Initial Report

*Quany L.*  
Approved EMSL Signatory  
Quanyi 'Charlie' Li, Ph.D.

Please visit our website at <http://www.microbiologytestinglab.com/>

© 2013, EMSL Analytical, Inc., All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of EMSL.





Lab Sample Number	Client Sample ID	Sample Location	Sample Size	EMSL Order#
6115-EPA-VC1-1	VC1-1	EPA QC Dust	5 mg	EMSL-001 EPA QC VC1-1

Environmental Relative Moldiness Index (ERMI) by Mold Specific Quantitative Polymerase Chain Reaction (MSQPCR)

Lab Sample Number Client Sample ID Sample Location Sample size	6115-EPA-VC1-1 VC1-1 EPA QC Dust 5mg Dust
EPA 36 Species Identification Group 1	Spores E./ mg dust
<i>Aspergillus flavus</i>	ND
<i>Aspergillus fumigatus</i>	ND
<i>Aspergillus niger</i>	2
<i>Aspergillus ochraceus</i>	ND
<i>Aspergillus penicillioides</i>	ND
<i>Aspergillus restrictus</i>	ND
<i>Aspergillus sclerotiorum</i>	ND
<i>Aspergillus sydowii</i>	ND
<i>Aspergillus unguis</i>	ND
<i>Aspergillus versicolor</i>	ND
<i>Eurotium (A.) amstelodami</i>	26
<i>Aureobasidium pullulans</i>	96
<i>Chaetomium globosum</i>	ND
<i>Cladosporium sphaerospermum</i>	30
<i>Paecilomyces variotii</i>	ND
<i>Penicillium brevicompactum</i>	ND
<i>Penicillium corylophilum</i>	ND
<i>Penicillium crustosum (group2)</i>	ND
<i>Penicillium purpurogenum</i>	ND
<i>Penicillium spinulosum</i>	ND
<i>Penicillium variable</i>	ND
<i>Scopulariopsis brevicaulis</i>	ND
<i>Scopulariopsis chartarum</i>	ND
<i>Stachybotrys chartarum</i>	ND
<i>Trichoderma viride</i>	3
<i>Wallemia sebi</i>	4
<b>Group 1 Sum of the Logs</b>	<b>6.3</b>

Lab Sample Number Client Sample ID Sample Location Sample size	6115-EPA-VC1-1 VC1-1 EPA QC Dust 5mg Dust
EPA 36 Species Identification Group 2	Spores E./ mg dust
<i>Acremonium strictum</i>	5
<i>Alternaria alternata</i>	6
<i>Aspergillus ustus</i>	10
<i>Cladosporium cladosporioides I</i>	134
<i>Cladosporium cladosporioides II</i>	2
<i>Cladosporium herbarum</i>	72
<i>Epicoccum nigrum</i>	729
<i>Mucor and Rhizopus group</i>	4
<i>Penicillium chrysogenum</i>	ND
<i>Rhizopus stolonifer</i>	1
<b>Group 2 Sum of the Logs</b>	<b>10.2</b>



Interpretation Key Group 2 Sum of the Logs



≤ 2 or ≥ 20 -- Less than or equal to 2 or  
Greater than or equal to 20



> 2 and < 20 -- Greater than 2 or Less than 20

**ERMI Value:**

**-3.9**

**ERMI Interpretation\***

**Level 2**



Interpretation Key ERMI Value



**Level 4: ERMI Value > 5**, High Relative Moldiness. Further Investigation  
needed to determine the sources of this mold.



**ERMI Value > -4 to 0 (Level 2) and > 0 to ≤ 5 (Level 3)**, Moderate  
Relative Moldiness. Further investigation needed to determine if sources of  
mold exists.



**Level 1: ERMI Value ≤ -4**, Low Relative Moldiness. It is unlikely you have  
a mold problem.

Initial Report From: 7/21/2015  
Amended Report From: Initial Report

*Quanyi L.*

Approved EMSL Signatory  
Quanyi 'Charlie' Li, Ph.D.

Please visit our website at <http://www.microbiologytestinglab.com/>

© 2013, EMSL Analytical, Inc., All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of EMSL.





Experiment: VC1 ERM1 LC480 Selected Filter: FAM (465-510)

7/20/2015

	VC1-1	VC1-2	VC1-3	ntc	pos
Name	Cp	Cp	Cp	Cp	Cp
Aflav					22.03
Afumi			40		21.27
Aniger	39.26	37.35	37.92		28.44
Aochr					26.8
Apeni					26.62
Arest					30.46
Asclr					24.83
Asydo					26.3
Aungu					23.23
Aversi					34.79
Eamst	34.73	38.33	35.61		26.95
Apull	33.36	32.68	32.7		19.83
Cglob					27.25
Cspha	34.01	32.46	32.77		26.27
Pvari		35.7	38.23		22.82
Pbrev					25.28
Pcory					24.24
Pcrust					25.59
Ppurp					21.43
Pspin					21.44
Pvarb					26.79
SCbrev			36.88		26.22
SCchr			40		21.44
Stac	38.92	40			19.39
Tviri	40				24.2
Wsebi	38.12	36.84	36.01		28.05
Astrc	40				27.45
Aaltr	39.25	38.31	38.92		28.98
Austs	36.8	35.79	36.25		30.65
Cclad1	32.14	31.06			24.9
Cclad2	38.1	37.37	40		21.64
Cherb	31.48	30.5	31.32		23.6
Enigr	31.06	30.36	30.62		20.33
Muc1	36.04	36.44	34.19		27.7
Pchry					29.8
Rstol	37.31	40	37.34		21.55
GEO	22.03	23.44	24.74		



Lab Sample Number	Client Sample ID	Sample Location	Sample Size	EMSL Order#
6115-EPA-VC1-2	VC1-2	EPA QC Dust	5 mg	6115-EPA-VC1-2

Environmental Relative Moldiness Index (ERMI) by Mold Specific Quantitative Polymerase Chain Reaction (MSQPCR)

Lab Sample Number Client Sample ID Sample Location Sample size	6115-EPA-VC1-2 VC1-2 EPA QC Dust 5mg Dust
EPA 36 Species Identification Group 1	Spores E./ mg dust
<i>Aspergillus flavus</i>	ND
<i>Aspergillus fumigatus</i>	ND
<i>Aspergillus niger</i>	7
<i>Aspergillus ochraceus</i>	ND
<i>Aspergillus penicillioides</i>	ND
<i>Aspergillus restrictus</i>	ND
<i>Aspergillus sclerotiorum</i>	ND
<i>Aspergillus sydowii</i>	ND
<i>Aspergillus unguis</i>	ND
<i>Aspergillus versicolor</i>	ND
<i>Eurotium (A.) amstelodami</i>	2
<i>Aureobasidium pullulans</i>	153
<i>Chaetomium globosum</i>	ND
<i>Cladosporium sphaerospermum</i>	83
<i>Paecilomyces variotii</i>	18
<i>Penicillium brevicompactum</i>	ND
<i>Penicillium corylophilum</i>	ND
<i>Penicillium crustosum (group2)</i>	ND
<i>Penicillium purpurogenum</i>	ND
<i>Penicillium spinulosum</i>	ND
<i>Penicillium variabile</i>	ND
<i>Scopulariopsis brevicaulis</i>	ND
<i>Scopulariopsis chartarum</i>	ND
<i>Stachybotrys chartarum</i>	ND
<i>Trichoderma viride</i>	ND
<i>Wallemia sebi</i>	10
<b>Group 1 Sum of the Logs</b>	<b>7.6</b>

Lab Sample Number Client Sample ID Sample Location Sample size	6115-EPA-VC1-2 VC1-2 EPA QC Dust 5mg Dust
EPA 36 Species Identification Group 2	Spores E./ mg dust
<i>Acremonium strictum</i>	ND
<i>Alternaria alternata</i>	11
<i>Aspergillus ustus</i>	19
<i>Cladosporium cladosporioides I</i>	276
<i>Cladosporium cladosporioides II</i>	3
<i>Cladosporium herbarum</i>	136
<i>Epicoccum nigrum</i>	1,157
<i>Mucor and Rhizopus group</i>	3
<i>Penicillium chrysogenum</i>	ND
<i>Rhizopus stolonifer</i>	ND
<b>Group 2 Sum of the Logs</b>	<b>10.9</b>



Interpretation Key Group 2 Sum of the Logs



≤ 2 or ≥ 20 -- Less than or equal to 2 or  
Greater than or equal to 20



> 2 and < 20 -- Greater than 2 or Less than 20

**ERMI Value:** -3.3  
**ERMI Interpretation\*** Level 2



Interpretation Key ERMI Value



**Level 4: ERMI Value > 5**, High Relative Moldiness. Further investigation needed to determine the sources of this mold.



**ERMI Value > -4 to 0 (Level 2) and > 0 to ≤ 5 (Level 3)**, Moderate Relative Moldiness. Further investigation needed to determine if sources of mold exists.



**Level 1: ERMI Value ≤ -4**, Low Relative Moldiness. It is unlikely you have a mold problem.

Initial Report From: 7/21/2015  
Amended Report From: Initial Report

*Quany L.*  
Approved EMSL Signatory  
Quanyi 'Charlie' Li, Ph.D.

Please visit our website at <http://www.microbiologytestinglab.com/>

© 2013, EMSL Analytical, Inc., All rights reserved. No part of this report may be reproduced or otherwise distributed or used without the express written consent of EMSL.





## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Tuesday, July 21, 2015 12:48 PM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** RE: ERMI QC RUNs on VC1 dust sample -thanks

Hi Charlie,

Thanks for doing this analysis and your quick report. It will take me a little while to compare all of the labs but I will get back to you asap.

Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Tuesday, July 21, 2015 12:45 PM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** ERMI QC RUNs on VC1 dust sample

Hi, Steve,

Attached are the QC run reports. The ERMI report uses lab average Ct for Geo as 21.5.

Let me know if you want to see run data from LC480 and our SOP.

Please let me know your recommendations if there are quality concerns.

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [mailto:vesper.stephen@epa.gov]  
**Sent:** Thursday, July 16, 2015 2:58 PM  
**To:** Li, Charles; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** excess dust

Hi Charlie,

No need to return any left-over dust. However, you may want to save it in case there are any problems.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Thursday, July 16, 2015 2:55 PM  
**To:** Vesper, Stephen; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - should be there Tomorrow

Hi, Steve,

Thanks, I will do. Do you want the dust to return to you?

Charlie, this package is not sample from client, no login, pass to me when you see it. Thanks.

Regards.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Thursday, July 16, 2015 2:51 PM  
**To:** Li, Charles; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - should be there Tomorrow

Hi Charlie,

I am sending you a package today by UPS overnight. It contains one tube of dust labeled VC1.

I would appreciate it if you would perform at least two and hopefully three separate extractions and analyses; in other words, two or three separate extracts of 5 mg of dust each time and separate analysis. Therefore, I should get two and hopefully three separate ERM1 reports. That way I can do some statistical analyses of the results.

Please let me know when the package arrives.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 14, 2015 1:31 PM  
**To:** Vesper, Stephen; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - great

HI, Steve,

Send to

Dr. Charlie Li  
200 Rt130 N  
Cinnaminson  
NJ 08077

Phone: 856-303-2554

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

-----  
"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, July 14, 2015 1:25 PM  
**To:** Li, Charles; Dobranic, Jason  
**Subject:** RE: test sample - great

Hi Charlie,

Good to hear everything is going well. What is your UPS overnight shipping address and phone number they can reach you at?

As to news from me, I have written a review article that summarizes all of the ERMI studies to date. It is in internal review right now but hope to submit for publication soon.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 14, 2015 12:27 PM



**To:** Dobranic, Jason; Vesper, Stephen  
**Subject:** RE: test sample ?

Hi, Steve,

Yes, please send to me directly, no login in, no payment, as EPA quality concerns for ERMI runs. We have a better lab now, the lab has HEPA filter clean air, also PCR Workstations with Class100 clean air. We run positive and negative controls every months as our monthly QC. I also conducted ERMI training runs annually for lab analysts.

Our MSQPCR is fine. Any news from your side, Steve?

Regards

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Dobranic, Jason  
**Sent:** Tuesday, July 14, 2015 11:48 AM  
**To:** Vesper, Stephen; Li, Charles  
**Subject:** RE: test sample ?

Sure, copying Dr. Li.

Sent from my Verizon 4G LTE Smartphone

---- Vesper, Stephen wrote ----

Hi Jason,

I have received some calls from people using the ERMI analysis and they tell me they have been sending the same sample to several licensed labs. They are telling me that they are getting significantly different ERMI reports from the different labs. There could be many reasons for this but it does concern me a great deal. I would like to send one sample, which we have tested here, to your lab and each of the other labs to make sure everyone is getting the same ERMI result.

Would it be possible for me to send Charlie Li (I assume he is still doing this analysis) a sample for ERMI analysis. This would be a big help to me in trying to clarify these reports.

Thanks.



Steve

**From:** Dobranic, Jason [<mailto:JDobranic@EMSL.com>]  
**Sent:** Monday, May 11, 2015 5:38 PM  
**To:** Vesper, Stephen  
**Subject:** RE: new article and editorial

Thanks Steve, I actually read this one a few weeks ago as I prepared a presentation. I gave an ERMI talk up in Maine a couple weeks ago. It was a good one. Good to see there is a lot of active research going on. The SERMI was another interesting one in Singapore.

Appreciate you forwarding these to make sure I have the latest info,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, May 05, 2015 9:35 AM  
**To:** Dobranic, Jason  
**Subject:** new article and editorial

Hi Jason,

New article and editorial supporting ERMI.

Steve



## **Vesper, Stephen**

---

**From:** Vesper, Stephen  
**Sent:** Wednesday, July 29, 2015 8:48 AM  
**To:** Villegas, Eric  
**Subject:** RE: commercial/academic lab EMSL

Hi Eric,

You might contact EMSL. However, they are not necessarily a food lab.

Steve

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

**From:** Villegas, Eric  
**Sent:** Wednesday, July 29, 2015 8:45 AM  
**To:** Vesper, Stephen  
**Subject:** commercial/academic lab that ID's fungi/bacteria in food (e.g. cured ham)

Steve,  
Do you know of any labs locally or in other states, that has the capabilities to detect and ID (type) fungi/bacteria in food? A colleague of mine has a curing ham business and is interested in identifying the different types for "mold" that's growing on their ham during the curing process. My understanding is that they've been seeing some anomalous "bad crusting" on their ham during the curing process. So they wanted to ID it and determine mitigations steps to prevent it from occurring again.

Thanks,  
Eric





## **Vesper, Stephen**

---

**From:** Vesper, Stephen  
**Sent:** Wednesday, August 12, 2015 10:17 AM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** RE: ERMI VC1 dust sample comparison  
**Attachments:** EMSL data.xlsx

Hi Charlie,

First let me thank you for helping me to improve the application of the ERMI by analyzing the dust sample VC1. This is great help and very important.

I intentionally provided a dust sample which had nearly all of the 36 species present but at relatively low concentrations. Attached is the data you provided and comparison to our data. First, I was glad to see that the analyses of the different sub-samples provided very similar results. The only exception was the third replicate of *C. clad* 1 which was non-detect but otherwise good replication.

I am not so concerned about 3-5 fold differences in comparative values for the average. However, there were about eight species not-detected or detected about 10 fold less than expected (see highlights). In many cases, they were not detected at all. It is hard to diagnose the problem. In some cases it could be the assay but it also could be the "sensitivity" due to the extraction and purification. For example, the assay for *Alternaria alternata* seems to be working. The problem could also be in the calculation.

There was one species *Aspergillus penicilioides* that was not detected and should have been. This *Aspergillus* species is found in nearly every dust sample in the US. I think your mix for this assay needs to be checked.

I would like to work with you to improve the results. I have more VC1, if you have time.

Thanks. I really appreciate your help.

Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Tuesday, July 21, 2015 12:45 PM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** ERMI QC RUNs on VC1 dust sample

Hi, Steve,

Attached are the QC run reports. The ERMI report uses lab average Ct for Geo as 21.5.

Let me know if you want to see run data from LC480 and our SOP.

Please let me know your recommendations if there are quality concerns.

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [mailto:vesper.stephen@epa.gov]  
**Sent:** Thursday, July 16, 2015 2:58 PM  
**To:** Li, Charles; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** excess dust

Hi Charlie,

No need to return any left-over dust. However, you may want to save it in case there are any problems.

Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Thursday, July 16, 2015 2:55 PM  
**To:** Vesper, Stephen; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - should be there Tomorrow

Hi, Steve,

Thanks, I will do. Do you want the dust to return to you?

Charlie, this package is not sample from client, no login, pass to me when you see it. Thanks.

Regards.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Thursday, July 16, 2015 2:51 PM  
**To:** Li, Charles; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - should be there Tomorrow

Hi Charlie,

I am sending you a package today by UPS overnight. It contains one tube of dust labeled VC1.

I would appreciate it if you would perform at least two and hopefully three separate extractions and analyses; in other words, two or three separate extracts of 5 mg of dust each time and separate analysis. Therefore, I should get two and hopefully three separate ERMI reports. That way I can do some statistical analyses of the results.

Please let me know when the package arrives.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 14, 2015 1:31 PM  
**To:** Vesper, Stephen; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - great

Hi, Steve,

Send to

Dr. Charlie Li  
200 Rt130 N  
Cinnaminson  
NJ 08077

Phone: 856-303-2554

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."



---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, July 14, 2015 1:25 PM  
**To:** Li, Charles; Dobranic, Jason  
**Subject:** RE: test sample - great

Hi Charlie,

Good to hear everything is going well. What is your UPS overnight shipping address and phone number they can reach you at?

As to news from me, I have written a review article that summarizes all of the ERMI studies to date. It is in internal review right now but hope to submit for publication soon.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 14, 2015 12:27 PM  
**To:** Dobranic, Jason; Vesper, Stephen  
**Subject:** RE: test sample ?

Hi, Steve,

Yes, please send to me directly, no login in, no payment, as EPA quality concerns for ERMI runs. We have a better lab now, the lab has HEPA filter clean air, also PCR Workstations with Class100 clean air. We run positive and negative controls every months as our monthly QC. I also conducted ERMI training runs annually for lab analysts.

Our MSQPCR is fine. Any news from your side, Steve?

Regards

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Dobranic, Jason  
**Sent:** Tuesday, July 14, 2015 11:48 AM  
**To:** Vesper, Stephen; Li, Charles  
**Subject:** RE: test sample ?

Sure, copying Dr. Li.



Sent from my Verizon 4G LTE Smartphone

----- Vesper, Stephen wrote -----

Hi Jason,

I have received some calls from people using the ERMI analysis and they tell me they have been sending the same sample to several licensed labs. They are telling me that they are getting significantly different ERMI reports from the different labs. There could be many reasons for this but it does concern me a great deal. I would like to send one sample, which we have tested here, to your lab and each of the other labs to make sure everyone is getting the same ERMI result.

Would it be possible for me to send Charlie Li (I assume he is still doing this analysis) a sample for ERMI analysis. This would be a big help to me in trying to clarify these reports.

Thanks.

Steve

**From:** Dobranic, Jason [<mailto:JDobranic@EMSL.com>]

**Sent:** Monday, May 11, 2015 5:38 PM

**To:** Vesper, Stephen

**Subject:** RE: new article and editorial

Thanks Steve, I actually read this one a few weeks ago as I prepared a presentation. I gave an ERMI talk up in Maine a couple weeks ago. It was a good one. Good to see there is a lot of active research going on. The SERMI was another interesting one in Singapore.

Appreciate you forwarding these to make sure I have the latest info,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 | 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Tuesday, May 05, 2015 9:35 AM

**To:** Dobranic, Jason

**Subject:** new article and editorial

Hi Jason,

New article and editorial supporting ERMI.



MOLDS	EMSL 1	EMSL 1	EMSL 1	EPA	EMSL
	VC1	VC1	VC1	AVG	AVG
<i>Aspergillus flavus</i>	ND	ND	ND	1	0
<i>Aspergillus fumigatus</i>	ND	ND	ND	1	0
<i>Aspergillus niger</i>	2	7	5	22	5
<i>Aspergillus ochraceus</i>	ND	ND	ND	1	0
<i>Aspergillus penicillioides</i>	ND	ND	ND	49	0
<i>Aspergillus restrictus</i>	ND	ND	ND	3	0
<i>Aspergillus sclerotiorum</i>	ND	ND	ND	1	0
<i>Aspergillus sydowii</i>	ND	ND	ND	11	0
<i>Aspergillus unguis</i>	ND	ND	ND	0	0
<i>Aspergillus versicolor</i>	ND	ND	ND	7	0
<i>Aureobasidium pullulans</i>	96	153	151	70	133
<i>Chaetomium globosum</i>	ND	ND	ND	9	0
<i>Cladosporium sphaerospermum</i>	30	83	68	43	60
<i>Eurotium amstelodami</i>	26	2	15	47	14
<i>Paecilomyces variotii</i>	ND	18	3	8	7
<i>Penicillium brevicompactum</i>	ND	ND	ND	1	0
<i>Penicillium corylophilum</i>	ND	ND	ND	8	0
<i>Penicillium crustosum</i>	ND	ND	ND	13	0
<i>Penicillium purpurogenum</i>	ND	ND	ND	0	0
<i>Penicillium spinulosum</i>	ND	ND	ND	0	0
<i>Penicillium variable</i>	ND	ND	ND	2	0
<i>Scopulariopsis brevicaulis</i>	ND	ND	3	1	1
<i>Scopulariopsis chartarum</i>	ND	ND	ND	2	0
<i>Stachybotrys chartarum</i>	ND	ND	ND	5	0
<i>Trichoderma viride</i>	3	ND	ND	1	1
<i>Wallemia sebi</i>	4	10	18	30	11
<b>Sum of the Logs (Group I):</b>	<b>6.3</b>	<b>7.6</b>	<b>8.1</b>	<b>16.86</b>	<b>7.33</b>
<i>Acremonium strictum</i>	5	ND	ND	0	2
<i>Alternaria alternata</i>	6	11	8	77	8
<i>Aspergillus ustus</i>	10	19	14	14	14
<i>Cladosporium cladosporioides 1</i>	134	276	ND	185	137
<i>Cladosporium cladosporioides 2</i>	2	3	ND	7	2
<i>Cladosporium herbarum</i>	72	136	80	500	96
<i>Epicoccum nigrum</i>	729	1157	974	400	953
<i>Mucor amphibiorum</i>	4	3	14	3	7
<i>Penicillium chrysogenum</i>	ND	ND	ND	11	0
<i>Rhizopus stolonifer</i>	1	ND	1	3	1
<b>Sum of the Logs (Group II):</b>	<b>10.20</b>	<b>10.9</b>	<b>8.1</b>	<b>13.14</b>	<b>9.73</b>
<b>ERMI (Group I - Group II):</b>	<b>-3.90</b>	<b>-3.3</b>	<b>0</b>	<b>3.72</b>	<b>-2.40</b>

**Adjustment**

about 50

about 10

about 10

about 10

about 10  
about 10

about 10

about 10



## Vesper, Stephen

---

**From:** Li, Charles <cli@EMSL.com>  
**Sent:** Wednesday, August 12, 2015 2:49 PM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** RE: ERMI VC1 dust sample comparison  
**Attachments:** removed.txt

Hi, Steve,

The differences between EPA data and EMSL data are significant. The comparisons did show that our ERMI qPCR is less sensitive than yours. I know that I might lose some sensitivity when applied automatic DNA extraction. I will look into this.

Steve, for manual DNA extraction from dust samples, do you use Roche HighPure DNA extraction kit? I will buy it to test on your VC1 dust sample, then improve my automatic DNA extraction procedure.

Thanks for your suggestions.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [mailto:vesper.stephen@epa.gov]  
**Sent:** Wednesday, August 12, 2015 10:17 AM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** RE: ERMI VC1 dust sample comparison

Hi Charlie,

First let me thank you for helping me to improve the application of the ERMI by analyzing the dust sample VC1. This is great help and very important.

I intentionally provided a dust sample which had nearly all of the 36 species present but at relatively low concentrations. Attached is the data you provided and comparison to our data. First, I was glad to see that the analyses of the different sub-samples provided very similar results. The only exception was the third replicate of C. clad 1 which was non-detect but otherwise good replication.

I am not so concerned about 3-5 fold differences in comparative values for the average. However, there were about eight species not-detected or detected about 10 fold less than expected (see highlights). In many cases, they were not detected at all. It is hard to diagnose the problem. In some cases it could be the assay but it also could be the "sensitivity" due to the extraction and purification. For example, the assay for *Alternaria alternata* seems to be working. The problem could also be in the calculation.

There was one species *Aspergillus penicilioides* that was not detected and should have been. This *Aspergillus* species is found in nearly every dust sample in the US. I think your mix for this assay needs to be checked.

I would like to work with you to improve the results. I have more VC1, if you have time.

Thanks. I really appreciate your help.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 21, 2015 12:45 PM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** ERMI QC RUNs on VC1 dust sample

Hi, Steve,

Attached are the QC run reports. The ERMI report uses lab average Ct for Geo as 21.5.

Let me know if you want to see run data from LC480 and our SOP.

Please let me know your recommendations if there are quality concerns.

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Thursday, July 16, 2015 2:58 PM  
**To:** Li, Charles; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** excess dust

Hi Charlie,



No need to return any left-over dust. However, you may want to save it in case there are any problems.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Thursday, July 16, 2015 2:55 PM  
**To:** Vesper, Stephen; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - should be there Tomorrow

Hi, Steve,

Thanks, I will do. Do you want the dust to return to you?

Charlie, this package is not sample from client, no login, pass to me when you see it. Thanks.

Regards.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Thursday, July 16, 2015 2:51 PM  
**To:** Li, Charles; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - should be there Tomorrow

Hi Charlie,

I am sending you a package today by UPS overnight. It contains one tube of dust labeled VC1.

I would appreciate it if you would perform at least two and hopefully three separate extractions and analyses; in other words, two or three separate extracts of 5 mg of dust each time and separate analysis. Therefore, I should get two and hopefully three separate ERMI reports. That way I can do some statistical analyses of the results.

Please let me know when the package arrives.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 14, 2015 1:31 PM  
**To:** Vesper, Stephen; Dobranic, Jason  
**Cc:** LaCerra, Charles  
**Subject:** RE: test sample - great

HI, Steve,

Send to

Dr. Charlie Li  
200 Rt130 N  
Cinnaminson  
NJ 08077

Phone: 856-303-2554

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, July 14, 2015 1:25 PM  
**To:** Li, Charles; Dobranic, Jason  
**Subject:** RE: test sample - great

Hi Charlie,

Good to hear everything is going well. What is your UPS overnight shipping address and phone number they can reach you at?

As to news from me, I have written a review article that summarizes all of the ERMI studies to date. It is in internal review right now but hope to submit for publication soon.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Tuesday, July 14, 2015 12:27 PM



To: Dobranic, Jason; Vesper, Stephen  
Subject: RE: test sample ?

Hi, Steve,

Yes, please send to me directly, no login in, no payment, as EPA quality concerns for ERMI runs. We have a better lab now, the lab has HEPA filter clean air, also PCR Workstations with Class100 clean air. We run positive and negative controls every months as our monthly QC. I also conducted ERMI training runs annually for lab analysts.

Our MSQPCR is fine. Any news from your side, Steve?

Regards

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Dobranic, Jason  
**Sent:** Tuesday, July 14, 2015 11:48 AM  
**To:** Vesper, Stephen; Li, Charles  
**Subject:** RE: test sample ?

Sure, copying Dr. Li.

Sent from my Verizon 4G LTE Smartphone

---- Vesper, Stephen wrote ----

Hi Jason,

I have received some calls from people using the ERMI analysis and they tell me they have been sending the same sample to several licensed labs. They are telling me that they are getting significantly different ERMI reports from the different labs. There could be many reasons for this but it does concern me a great deal. I would like to send one sample, which we have tested here, to your lab and each of the other labs to make sure everyone is getting the same ERMI result.

Would it be possible for me to send Charlie Li (I assume he is still doing this analysis) a sample for ERMI analysis. This would be a big help to me in trying to clarify these reports.

Thanks.

Steve

**From:** Dobranic, Jason [<mailto:JDobranic@EMSL.com>]  
**Sent:** Monday, May 11, 2015 5:38 PM  
**To:** Vesper, Stephen  
**Subject:** RE: new article and editorial

Thanks Steve, I actually read this one a few weeks ago as I prepared a presentation. I gave an ERMI talk up in Maine a couple weeks ago. It was a good one. Good to see there is a lot of active research going on. The SERMI was another interesting one in Singapore.

Appreciate you forwarding these to make sure I have the latest info,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*  
**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040  
Phone: 713-686-3635 | 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, May 05, 2015 9:35 AM  
**To:** Dobranic, Jason  
**Subject:** new article and editorial

Hi Jason,

New article and editorial supporting ERMI.

Steve

## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Monday, October 05, 2015 8:00 AM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** Do not dilute extract

Hi Charlie,

If you need to have extra DNA extract for sample analysis, please do two 5 mg dust extracts recovered in 200 uL each. These can then be combined to provide 400 uL. It is very important to carry out the extraction exactly as taught. Do not dilute the extract.

Thanks.  
Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Thursday, October 01, 2015 8:40 AM  
**To:** Vesper, Stephen  
**Subject:** RE: GEO Spores -BioBall

Hi, Steve,

Thanks. As you may know, we have been using lab average GEO at 21.5 for our tests. I am re-evaluating the GEO Spores.

Meanwhile, we may have to use more stringent QC on MSQPCR probes and primers. We run monthly QC for positive and negative controls for ERMI, although all probes and primers pass QC, however, we did use probes several years old. Now, I use IDT's probes, they had ZEN structure which can reduce background and increase specificity.

Another thing is that the DNA extracted from 5 mg dust is in 300 uL volume (not 200 uL, we need extra for checking and rerun etc.), so our DNA is more diluted. I am thinking to use 7.5 mg dust in order to get equivalent concentration. What do you think?

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of



this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments.  
Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, September 29, 2015 3:13 PM  
**To:** Li, Charles  
**Subject:** RE: GEO Spores -BioBall

Hi Charlie,

I don't know of any applicable Bioballs. Actually, if you make-up  $1 \times 10^8$  spores per ml Geo, it really should not be a problem with accuracy. Don't use anything below  $10^6$ /ml.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Thursday, September 24, 2015 4:30 PM  
**To:** Vesper, Stephen  
**Subject:** GEO Spores -BioBall

Hi, Steve,

We are still working on it. It seems that the lab average GEO needs to be re-evaluated. Have you tried to make GEO spores into bioball? I know Rich and others had used BioBall with accurate cells buried into the beads as qPCR quantitation calibrators.

Best

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments.  
Thank you."



## Vesper, Stephen

---

**From:** Li, Charles <cli@EMSL.com>  
**Sent:** Monday, October 05, 2015 8:45 AM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** RE: Do not dilute extract  
**Attachments:** removed.txt

Hi, Steve,

Thanks for the comments, we will follow.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [mailto:vesper.stephen@epa.gov]  
**Sent:** Monday, October 05, 2015 8:00 AM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** Do not dilute extract

Hi Charlie,

If you need to have extra DNA extract for sample analysis, please do two 5 mg dust extracts recovered in 200 ul each. These can then be combined to provide 400 ul. It is very important to carry out the extraction exactly as taught. Do not dilute the extract.

Thanks.  
Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Thursday, October 01, 2015 8:40 AM  
**To:** Vesper, Stephen  
**Subject:** RE: GEO Spores -BioBall

Hi, Steve,

Thanks. As you may know, we have been using lab average GEO at 21.5 for our tests. I am re-evaluating the GEO Spores.

Meanwhile, we may have to use more stringent QC on MSQPCR probes and primers. We run monthly QC for positive and negative controls for ERMI, although all probes and primers pass QC, however, we did use probes several years old. Now, I use IDT's probes, they had ZEN structure which can reduce background and increase specificity.

Another thing is that the DNA extracted from 5 mg dust is in 300 uL volume (not 200 uL, we need extra for checking and rerun etc.), so our DNA is more diluted. I am thinking to use 7.5 mg dust in order to get equivalent concentration. What do you think?

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Tuesday, September 29, 2015 3:13 PM

**To:** Li, Charles

**Subject:** RE: GEO Spores -BioBall

Hi Charlie,

I don't know of any applicable Bioballs. Actually, if you make-up  $1 \times 10^8$  spores per ml Geo, it really should not be a problem with accuracy. Don't use anything below  $10^6$ /ml.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Thursday, September 24, 2015 4:30 PM

**To:** Vesper, Stephen

**Subject:** GEO Spores -BioBall

Hi, Steve,

We are still working on it. It seems that the lab average GEO needs to be re-evaluated. Have you tried to make GEO spores into bioball? I know Rich and others had used BioBall with accurate cells buried into the beads as qPCR quantitation calibrators.

Best

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."





## Vesper, Stephen

---

**From:** Dobranic, Jason <JDobranic@EMSL.com>  
**Sent:** Monday, October 05, 2015 12:27 PM  
**To:** Li, Charles; Vesper, Stephen  
**Subject:** RE: Do not dilute extract

Steve, should we re-run your dust sample with this change to see where we fall out?



**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*  
**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Li, Charles  
**Sent:** Monday, October 05, 2015 7:45 AM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** RE: Do not dilute extract

Hi, Steve,

Thanks for the comments, we will follow.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Monday, October 05, 2015 8:00 AM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** Do not dilute extract

Hi Charlie,

If you need to have extra DNA extract for sample analysis, please do two 5 mg dust extracts recovered in 200 ul each. These can then be combined to provide 400 ul. It is very important to carry out the extraction exactly as taught. Do not dilute the extract.

Thanks.  
Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Thursday, October 01, 2015 8:40 AM  
**To:** Vesper, Stephen  
**Subject:** RE: GEO Spores -BioBall

Hi, Steve,

Thanks. As you may know, we have been using lab average GEO at 21.5 for our tests. I am re-evaluating the GEO Spores.

Meanwhile, we may have to use more stringent QC on MSQPCR probes and primers. We run monthly QC for positive and negative controls for ERMI, although all probes and primers pass QC, however, we did use probes several years old. Now, I use IDT's probes, they had ZEN structure which can reduce background and increase specificity.

Another thing is that the DNA extracted from 5 mg dust is in 300 uL volume (not 200 uL, we need extra for checking and rerun etc.), so our DNA is more diluted. I am thinking to use 7.5 mg dust in order to get equivalent concentration. What do you think?

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, September 29, 2015 3:13 PM  
**To:** Li, Charles  
**Subject:** RE: GEO Spores -BioBall

Hi Charlie,

I don't know of any applicable Bioballs. Actually, if you make-up  $1 \times 10^8$  spores per ml Geo, it really should not be a problem with accuracy. Don't use anything below  $10^6$ /ml.

Steve



**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Thursday, September 24, 2015 4:30 PM  
**To:** Vesper, Stephen  
**Subject:** GEO Spores -BioBall

Hi, Steve,

We are still working on it. It seems that the lab average GEO needs to be re-evaluated. Have you tried to make GEO spores into bioball? I know Rich and others had used BioBall with accurate cells buried into the beads as qPCR quantitation calibrators.

Best

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.**

| 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."



## Vesper, Stephen

---

**From:** Li, Charles <cli@EMSL.com>  
**Sent:** Monday, October 05, 2015 2:20 PM  
**To:** Dobranic, Jason; Vesper, Stephen  
**Subject:** RE: Do not dilute extract  
**Attachments:** removed.txt

Jason,

We already did run different amount of Steve's standard dust. We have a few more steps need to be examined.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Dobranic, Jason  
**Sent:** Monday, October 05, 2015 12:27 PM  
**To:** Li, Charles; Vesper, Stephen  
**Subject:** RE: Do not dilute extract

Steve, should we re-run your dust sample with this change to see where we fall out?



**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*  
**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Li, Charles  
**Sent:** Monday, October 05, 2015 7:45 AM  
**To:** Vesper, Stephen  
**Cc:** Dobranic, Jason  
**Subject:** RE: Do not dilute extract

Hi, Steve,



Thanks for the comments, we will follow.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Monday, October 05, 2015 8:00 AM

**To:** Li, Charles

**Cc:** Dobranic, Jason

**Subject:** Do not dilute extract

Hi Charlie,

If you need to have extra DNA extract for sample analysis, please do two 5 mg dust extracts recovered in 200 ul each. These can then be combined to provide 400 ul. It is very important to carry out the extraction exactly as taught. Do not dilute the extract.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Thursday, October 01, 2015 8:40 AM

**To:** Vesper, Stephen

**Subject:** RE: GEO Spores -BioBall

Hi, Steve,

Thanks. As you may know, we have been using lab average GEO at 21.5 for our tests. I am re-evaluating the GEO Spores.

Meanwhile, we may have to use more stringent QC on MSQPCR probes and primers. We run monthly QC for positive and negative controls for ERMI, although all probes and primers pass QC, however, we did use probes several years old. Now, I use IDT's probes, they had ZEN structure which can reduce background and increase specificity.

Another thing is that the DNA extracted from 5 mg dust is in 300 uL volume (not 200 uL, we need extra for checking and rerun etc.), so our DNA is more diluted. I am thinking to use 7.5 mg dust in order to get equivalent concentration. What do you think?

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Tuesday, September 29, 2015 3:13 PM

**To:** Li, Charles

**Subject:** RE: GEO Spores -BioBall

Hi Charlie,

I don't know of any applicable Bioballs. Actually, if you make-up  $1 \times 10^8$  spores per ml Geo, it really should not be a problem with accuracy. Don't use anything below  $10^6$ /ml.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Thursday, September 24, 2015 4:30 PM

**To:** Vesper, Stephen

**Subject:** GEO Spores -BioBall

Hi, Steve,

We are still working on it. It seems that the lab average GEO needs to be re-evaluated. Have you tried to make GEO spores into bioball? I know Rich and others had used BioBall with accurate cells buried into the beads as qPCR quantitation calibrators.

Best

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."





## Vesper, Stephen

---

**From:** Dobranic, Jason <JDobranic@EMSL.com>  
**Sent:** Thursday, October 08, 2015 12:32 PM  
**To:** Vesper, Stephen  
**Subject:** Shoemaker

Hi Steve, looks like Dr. Shoemaker is trying to make some waves, see his post here:  
<http://www.survivingmold.com/legal-resources/dr.-shoemaker-essays/emsl-lab-director-acknowledges-epa-investigation-offers-free-repeat-ermi>

Charlie says he was misquoted and never told him we are going to offer free retesting. Did you at any point talk to Dr. Shoemaker and tell him we were under an investigation?  
There is always need for continual improvement in the labs but from what you saw with Dr. Li were our results outside of acceptable variation given the heterogeneity of dust samples and method error? Is there anything we can do to put to rest the validity of our ERMI results.

Thanks,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040  
Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."



## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Thursday, October 08, 2015 12:45 PM  
**To:** Dobranic, Jason  
**Subject:** RE: Shoemaker

Hi Jason,

Dr. Shoemaker told me he was having issues with the ERMI mold analyses from some of the licensed labs. I told him I am periodically working with all of the licensed labs. As you know, I sent a standard sample out to each lab. I did a similar study a few years ago. I am working with each lab to detect any possible issues. I know Charlie Li has uncovered a few problems and he is working on fixing them. I am working similarly with the other labs. My goal is to make sure everyone provides accurate results.

Thanks.

Steve

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Thursday, October 08, 2015 12:32 PM  
**To:** Vesper, Stephen  
**Subject:** Shoemaker

Hi Steve, looks like Dr. Shoemaker is trying to make some waves, see his post here:  
<http://www.survivingmold.com/legal-resources/dr.-shoemaker-essays/emsl-lab-director-acknowledges-epa-investigation-offers-free-repeat-ermi>

Charlie says he was misquoted and never told him we are going to offer free retesting. Did you at any point talk to Dr. Shoemaker and tell him we were under an investigation?  
There is always need for continual improvement in the labs but from what you saw with Dr. Li were our results outside of acceptable variation given the heterogeneity of dust samples and method error? Is there anything we can do to put to rest the validity of our ERMI results.

Thanks,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040  
Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."





## Vesper, Stephen

---

**From:** Dobranic, Jason <JDobranic@EMSL.com>  
**Sent:** Thursday, October 08, 2015 12:47 PM  
**To:** Vesper, Stephen  
**Subject:** RE: Shoemaker

Ok thanks. He seems to push work to Mycometrics so his motives concern me and obviously his website rant is not positive for us.

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [mailto:vesper.stephen@epa.gov]  
**Sent:** Thursday, October 08, 2015 11:45 AM  
**To:** Dobranic, Jason  
**Subject:** RE: Shoemaker

Hi Jason,

Dr. Shoemaker told me he was having issues with the ERMI mold analyses from some of the licensed labs. I told him I am periodically working with all of the licensed labs. As you know, I sent a standard sample out to each lab. I did a similar study a few years ago. I am working with each lab to detect any possible issues. I know Charlie Li has uncovered a few problems and he is working on fixing them. I am working similarly with the other labs. My goal is to make sure everyone provides accurate results.

Thanks.

Steve

---

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Thursday, October 08, 2015 12:32 PM  
**To:** Vesper, Stephen  
**Subject:** Shoemaker

Hi Steve, looks like Dr. Shoemaker is trying to make some waves, see his post here:

<http://www.survivingmold.com/legal-resources/dr.-shoemaker-essays/emsl-lab-director-acknowledges-epa-investigation-offers-free-repeat-ermi>

Charlie says he was misquoted and never told him we are going to offer free retesting. Did you at any point talk to Dr. Shoemaker and tell him we were under an investigation?  
There is always need for continual improvement in the labs but from what you saw with Dr. Li were our results outside of acceptable variation given the heterogeneity of dust samples and method error? Is there anything we can do to put to rest the validity of our ERMI results.

Thanks,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments.  
Thank you."

## **Vesper, Stephen**

---

**From:** Vesper, Stephen  
**Sent:** Monday, November 02, 2015 2:49 PM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** another sample?

Hi Charlie,

I am really glad, this looks better.

I would like to send you another sample, if you are willing to consider analyzing it.

Thanks.

Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Monday, November 02, 2015 9:45 AM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Cc:** Dobranic, Jason <JDobranic@EMSL.com>  
**Subject:** RE: Do not dilute extract

Hi, Steve,

Thanks for help on our ERMI analysis. The attached is ERMI runs report using corrected protocol. All your suggestions were investigated and re-evaluated. As the dust sample size has been adjusted, the new lab geo average is derived from an average of Geo Ct values from multiple runs using VC-1 dust, then one standard deviation has been subtracted from the average Ct. I also replaced the MSQPCR probes and primers. A new SOP will be written with more stringent QA criteria.

Please let know your comments on our new ERMI runs. I am thinking that I may visit your lab in Cincinnati

In near future and get more training from you if you can arrange it.

We have many clients who use our lab for ERMI, many molds sensitive and Lyme disease persons. I have referred them to read EPA molds website, in particular, molds booklets. They are very happy to learn about molds and fix molds problems in their homes.

Regards

Charlie





**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Monday, October 05, 2015 8:00 AM

**To:** Li, Charles

**Cc:** Dobranic, Jason

**Subject:** Do not dilute extract

Hi Charlie,

If you need to have extra DNA extract for sample analysis, please do two 5 mg dust extracts recovered in 200 ul each. These can then be combined to provide 400 ul. It is very important to carry out the extraction exactly as taught. Do not dilute the extract.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Thursday, October 01, 2015 8:40 AM

**To:** Vesper, Stephen

**Subject:** RE: GEO Spores -BioBall

Hi, Steve,

Thanks. As you may know, we have been using lab average GEO at 21.5 for our tests. I am re-evaluating the GEO Spores.

Meanwhile, we may have to use more stringent QC on MSQPCR probes and primers. We run monthly QC for positive and negative controls for ERMI, although all probes and primers pass QC, however, we did use probes several years old. Now, I use IDT's probes, they had ZEN structure which can reduce background and increase specificity.

Another thing is that the DNA extracted from 5 mg dust is in 300 uL volume (not 200 uL, we need extra for checking and rerun etc.), so our DNA is more diluted. I am thinking to use 7.5 mg dust in order to get equivalent concentration. What do you think?

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call



Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Tuesday, September 29, 2015 3:13 PM

**To:** Li, Charles

**Subject:** RE: GEO Spores -BioBall

Hi Charlie,

I don't know of any applicable Bioballs. Actually, if you make-up  $1 \times 10^8$  spores per ml Geo, it really should not be a problem with accuracy. Don't use anything below  $10^6$ /ml.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Thursday, September 24, 2015 4:30 PM

**To:** Vesper, Stephen

**Subject:** GEO Spores -BioBall

Hi, Steve,

We are still working on it. It seems that the lab average GEO needs to be re-evaluated. Have you tried to make GEO spores into bioball? I know Rich and others had used BioBall with accurate cells buried into the beads as qPCR quantitation calibrators.

Best

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."



## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Monday, November 02, 2015 3:05 PM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** RE: another sample- ok

Hi Charlie,

Great. I will let you know before I send the sample. It might be a couple of weeks.

Thanks.

Steve

**From:** Li, Charles [mailto:cli@EMSL.com]  
**Sent:** Monday, November 02, 2015 2:52 PM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Cc:** Dobranic, Jason <JDobranic@EMSL.com>  
**Subject:** RE: another sample?

Hi, Steve,

Yes, please.

Send to me,

Dr. Charlie Li

DNA Analysis Lab

200 Rt130 N  
Cinnaminson, NJ 08077

Tel: 856-303-2554.

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Monday, November 02, 2015 2:49 PM  
**To:** Li, Charles  
**Cc:** Dobranic, Jason  
**Subject:** another sample?

Hi Charlie,

I am really glad, this looks better.

I would like to send you another sample, if you are willing to consider analyzing it.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Monday, November 02, 2015 9:45 AM  
**To:** Vesper, Stephen <[vesper.stephen@epa.gov](mailto:vesper.stephen@epa.gov)>  
**Cc:** Dobranic, Jason <[JDobranic@EMSL.com](mailto:JDobranic@EMSL.com)>  
**Subject:** RE: Do not dilute extract

Hi, Steve,

Thanks for help on our ERMI analysis. The attached is ERMI runs report using corrected protocol. All your suggestions were investigated and re-evaluated. As the dust sample size has been adjusted, the new lab geo average is derived from an average of Geo Ct values from multiple runs using VC-1 dust, then one standard deviation has been subtracted from the average Ct. I also replaced the MSQPCR probes and primers. A new SOP will be written with more stringent QA criteria.

Please let know your comments on our new ERMI runs. I am thinking that I may visit your lab in Cincinnati  
In near future and get more training from you if you can arrange it.

We have many clients who use our lab for ERMI, many molds sensitive and Lyme disease persons. I have referred them to read EPA molds website, in particular, molds booklets. They are very happy to learn about molds and fix molds problems in their homes.

Regards

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)



"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]

**Sent:** Monday, October 05, 2015 8:00 AM

**To:** Li, Charles

**Cc:** Dobranic, Jason

**Subject:** Do not dilute extract

Hi Charlie,

If you need to have extra DNA extract for sample analysis, please do two 5 mg dust extracts recovered in 200 ul each. These can then be combined to provide 400 ul. It is very important to carry out the extraction exactly as taught. Do not dilute the extract.

Thanks.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]

**Sent:** Thursday, October 01, 2015 8:40 AM

**To:** Vesper, Stephen

**Subject:** RE: GEO Spores -BioBall

Hi, Steve,

Thanks. As you may know, we have been using lab average GEO at 21.5 for our tests. I am re-evaluating the GEO Spores.

Meanwhile, we may have to use more stringent QC on MSQPCR probes and primers. We run monthly QC for positive and negative controls for ERMI, although all probes and primers pass QC, however, we did use probes several years old. Now, I use IDT's probes, they had ZEN structure which can reduce background and increase specificity.

Another thing is that the DNA extracted from 5 mg dust is in 300 uL volume (not 200 uL, we need extra for checking and rerun etc.), so our DNA is more diluted. I am thinking to use 7.5 mg dust in order to get equivalent concentration. What do you think?

Thanks

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*

**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077

Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [<mailto:vesper.stephen@epa.gov>]  
**Sent:** Tuesday, September 29, 2015 3:13 PM  
**To:** Li, Charles  
**Subject:** RE: GEO Spores -BioBall

Hi Charlie,

I don't know of any applicable Bioballs. Actually, if you make-up  $1 \times 10^8$  spores per ml Geo, it really should not be a problem with accuracy. Don't use anything below  $10^6$ /ml.

Steve

**From:** Li, Charles [<mailto:cli@EMSL.com>]  
**Sent:** Thursday, September 24, 2015 4:30 PM  
**To:** Vesper, Stephen  
**Subject:** GEO Spores -BioBall

Hi, Steve,

We are still working on it. It seems that the lab average GEO needs to be re-evaluated. Have you tried to make GEO spores into bioball? I know Rich and others had used BioBall with accurate cells buried into the beads as qPCR quantitation calibrators.

Best

Charlie



**Charles Li, Ph.D.** | *Director of PCR and DNA Analysis Laboratory*  
**EMSL Analytical, Inc.** | 200 Route 130 North | Cinnaminson, NJ 08077  
Phone: 856-303-2554 | Fax: 856-786-0262 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Tuesday, December 01, 2015 11:00 AM  
**To:** Dobranic, Jason  
**Subject:** call

Hi Jason,

Sure, what is a good time for you?

Steve

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Tuesday, December 01, 2015 10:05 AM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Subject:** Update

Steve, do you have some time this afternoon or tomorrow to talk. Charlie sent me his list of corrective actions that he believes addresses your findings with the standard dust sample. Sometimes it even hard for me to understand Charlie so I wanted to make sure all the suggestions he has makes sense to you before we implement them in our SOP and report. Just let me know a good time to call, thanks.  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."





## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Tuesday, December 01, 2015 11:16 AM  
**To:** Dobranic, Jason  
**Subject:** RE: call

Hi Jason,

1 pm central (2 pm my time) is fine. Do you want me to call you, if so what number? Or my number is 513-569-7367.

Steve

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Tuesday, December 01, 2015 11:07 AM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Subject:** RE: call

Today at 1 PM central or 2 central work great for me.

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

---

**From:** Vesper, Stephen [mailto:vesper.stephen@epa.gov]  
**Sent:** Tuesday, December 01, 2015 10:00 AM  
**To:** Dobranic, Jason  
**Subject:** call

Hi Jason,

Sure, what is a good time for you?

Steve

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Tuesday, December 01, 2015 10:05 AM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Subject:** Update

Steve, do you have some time this afternoon or tomorrow to talk. Charlie sent me his list of corrective actions that he believes addresses your findings with the standard dust sample. Sometimes it even hard for me to understand Charlie so I wanted to make sure all the suggestions he has makes sense to you before we implement them in our SOP and report.

Just let me know a good time to call, thanks.

Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). **If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited.** If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Tuesday, December 01, 2015 3:53 PM  
**To:** Dobranic, Jason  
**Subject:** RE: Homeowner

Hi Jason,

I don't know anything about this homeowner's communications. I also don't know about any EPA investigation. I think the main thing is to get the quality assurance implemented, as we discussed earlier.

Thanks.

Steve

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Tuesday, December 01, 2015 3:27 PM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Subject:** Homeowner

Steve, on another matter, I received a call from a homeowner wanting a refund on her ERMI results. She says she spoke to someone at the EPA in Kansas City and that that person called "EPA headquarters" and was told EMSL is under investigation by the EPA. Not sure what is going on, are we being officially investigated and need to put a hold on our ERMI testing? I believe it has something to do with the Shoemaker blog,  
Jason

**Jason Dobranic, Ph.D.** | *Vice President of Microbiology and Life Sciences*

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040  
Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675  
Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:  
[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."





## Vesper, Stephen

---

**From:** Vesper, Stephen  
**Sent:** Wednesday, December 02, 2015 8:01 AM  
**To:** Dobranic, Jason  
**Subject:** Gianni Rossini

Hi Jason,

I helped Gianni Rossini ([gianni202@gmail.com](mailto:gianni202@gmail.com) cell is 210-782-2803 ) get ERMI technology set-up at SWRI (Southwest Research Institute) in San Antonio, TX. He was analyzing National Children's Study dust samples by ERMI. I think he analyzed about 500 samples but the National Children's study was canceled and he lost his funding. I know he is looking for a position. He has a thorough grasp of the technology.

Good luck.

Steve

**From:** Dobranic, Jason [mailto:JDobranic@EMSL.com]  
**Sent:** Tuesday, December 01, 2015 5:33 PM  
**To:** Vesper, Stephen <vesper.stephen@epa.gov>  
**Subject:** Lab staff

Steve, if you know any post docs or other well qualified people please let me know. We would be looking to hire someone in our NJ lab.

Much appreciated,  
Jason

**Jason Dobranic, Ph.D. | Vice President of Microbiology and Life Sciences**

**EMSL Analytical, Inc.** | 8700 Jameel Rd Suite 190 | Houston, TX 77040

Phone: 713-686-3635 \ 866-318-3920 | Fax: 713-686-3645 | Toll Free: 800-220-3675

Lab Hours: Mon-Friday 7AM-10PM, Saturday 8AM-5PM, Sunday On-Call

Some of the resources EMSL Analytical, Inc. offers to our clients:

[LABConnect](#) | [Order Products](#) | [Client Corner](#) | [Training](#) | [Additional Resources](#) | [Sampling Videos](#)

---

"This email may contain privileged and confidential information and is solely for the use of the sender's intended recipient(s). If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you received this email in error, please notify the sender by reply email and delete all copies and attachments. Thank you."

